## ABSTRACT OF THE DISCLOSURE

A semiconductor integrated circuit device and a fabrication method thereof are disclosed, for effective suppression of a temperature increase therein 5 that is caused by heat generation of a semiconductor element. The semiconductor integrated circuit device includes a semiconductor element, a multi-layer wiring structure and a heat conduction part. The semiconductor element is formed on a support substrate. The multi-10 layer wiring structure is formed in an insulation film on the support substrate and includes at least one connection hole and at least one metal wiring layer. The heat conduction part is formed of the same conductive materials as the connection hole and the 15 metal wiring layer and extends toward an upper layer side along a path different from a wiring path including a connection hole and a metal wiring for signal transmission.